

DOCUMENT RESUME

ED 367 130

FL 021 497

AUTHOR Gabler, Carlos
TITLE Center for Bilingual Studies Report.
INSTITUTION Saint Augustine Coll., Chicago, IL.
SPONS AGENCY Fund for the Improvement of Postsecondary Education
(ED), Washington, DC.
PUB DATE 88
CONTRACT 6008541014
NOTE 58p.; Light type throughout document.
PUB TYPE Reports - Descriptive (141)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Bilingual Education Programs; Community Colleges;
Excellence in Education; Federal Aid; Higher
Education; *Nontraditional Students; Program
Descriptions; Program Development; *Spanish Speaking;
*Two Year Colleges
IDENTIFIERS Saint Augustine Community College IL

ABSTRACT

The report details the development of the Center for Bilingual Studies (CBS) at St. Augustine College (Illinois), a bilingual junior college founded by Hispanic educators and targeting a nontraditional Hispanic student population. The CBS was founded to address issues of educational excellence for nontraditional students, acknowledging the tension between the curriculum offered and the characteristics of the population served. The 3-year period of the federal grant for program development had three stages. The first involved initial research and needs assessment. During this stage, three studies were conducted: theoretical approaches to curriculum development; assessment of the college's curriculum design in comparison with those of other Illinois higher education institutions; and characteristics and circumstances of the college's population that affect learning. Findings of the last study are summarized. The second stage consisted of development of curricular strategies and design, using this information. Testing plans and courses developed during this stage are described, highlighting design considerations. The third stage involved evaluation and assessment of the changes introduced. (MSE)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

ED 367 130

CENTER FOR BILINGUAL
STUDIES
REPORT

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- ☐ This document has been reproduced as received from the person or organization originating it
- ☐ Minor changes have been made to improve reproduction quality
- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

CARLOS GABLER
(1985-88)

FL021497

TABLE OF CONTENTS

1.	Background	1
1.1	The College	1
1.2	Non-Traditional Student	1
1.3	The College's Students	2
1.4	The Center	3
1.5	The CBS's Objectives	4
1.6	The CBS's Structure	6
1.7	The Project's Implementation Stages	6
2.	Research and Findings	8
2.1	Theoretical Approaches to Curriculum Development	8
2.2	Analysis of the St. Agustin College's Curriculum Structure and Syllabi	9
2.3	Characteristics and Conditions of the SAC Student Population	12
2.4	Findings on SAC's Students	14
3.	Projects and Curriculum Interventions ...	25
3.1	Interventions at the Curriculum Context Level	25
3.1.1	Satisfactory Academic Progress Policy ...	25
3.1.2	Honor program and Dean List	27
3.1.3	English Placement Test	29
3.1.4	Mathematics Placement Test	32
3.1.5	Equation for Admitted Students	34

3.2	Interventions at the Curriculum Process Level	37
3.2.1	Reform of the English Program	38
3.2.2	Unification of Syllabi and Exams	46
3.2.3	Introductory Mathematics Course	49
3.3	Interventions at the Curriculum Design Level	52
3.3.1	The Spanish Program	52
4.	Conclusions and Recommendations	54
4.1	Conclusions	54
4.2	Recommendations	55

1.1. The College. Saint Augustine College is a bilingual junior college located in Chicago. Its enrollment averages around 1,000 students per semester. The College was founded in 1980 by Dr. Carlos Plazas and a group of Hispanic educators with the triple mission of

S.S.P. >

- (i) making the American system of higher education accessible to Hispanics without lowering standards;
- (ii) integrating Hispanics into the mainstream of American life without belittling their ethnic identity;
- (iii) bridging the cultural gap to enable Hispanics to take their place as contributing members and leaders of America.

1.2 Non-Traditional Student. In the effort to accomplish its mission, SAC has targeted a very unique non-traditional student population. Educational literature defines a non-traditional student as one who is an interrupted learner and who, in addition to studying, holds either a full or part-time job and has family responsibilities. Since this person assumes roles other than those of traditional students, time constraints constitute the main variable governing his/her academic performance.

The College's Students. SAC's student body presents a perfect example of a non-traditional population. On 1986, a SAC student averaged 31 years of age, which is 10 years older than the traditional college student. Practically all students are in need of financial aid. The average income of self-supporting students is \$7,000, which for a family of four, falls at almost 50 percent less than the federal level of poverty. In terms of family responsibilities, 77 percent of St. Augustine students have children. Within this population there is an average of 3 children. Also, of this category 42 percent have children under 7 years of age, demanding much more attention from their parents. In relation to work responsibilities, 64 percent of the students hold a permanent job, 81 percent of these being full-time positions. Among those who work, 92 percent also have children, while 42 percent of the female students have children and work. In regard to academic background and educational socialization, 91 percent of the students are interrupted learners with a mean of 13 years out of school. Thus, 85 percent of the new enrollees are placed in a mathematics remedial course. As pertains to language proficiency, 43 percent are placed in a beginning level of English as a Second Language (ESL), 15 percent in an intermediate level and 8 percent in an advanced level. Those who already are English dominant speakers divide into 24 percent that placed in remedial courses of English, while only 10

percent are able to enter directly to the regular college composition course.

In summary, in comparison with the traditional standards in the U.S. system of higher education, an average SAC student would embody all the typical variables of an "at high risk undergraduate," that is, a student who very likely will not graduate.

1.4 The Center. SAC founded the Center for Bilingual Studies in Post-Secondary Education as an institutional way of addressing the issue of academic excellence within the context of a non-traditional student population. The College's short but rich experience between 1980 and 1985 convinced its administration of how crucial the matter of academic excellence was for any further development. The CBS was organized to

- (i) research and identify weaknesses of the academic process;
- (ii) study, explore and suggest alternatives for detecting problems;
- (iii) coordinate efforts in providing and implementing solutions, in conjunction with the Office of Academic Affairs and the Office of Student Affairs.

By founding the CBS, the administration of SAC acknowledged the tensions that exist between the type of curriculum offered and the type of student population served. In fact, while the time available for studying is the main constraint faced by non-traditional

students, one of the dominant features of a Liberal Arts curriculum is that it is extremely time consuming. Therefore, the core of SAC's educational challenges can be identified as those resulting from an attempt to instill a very traditional curricular approach within an exceedingly non-traditional student population.

- 1.5 The CBS's Objectives. When the SAC administration created the CBS to work on the above dilemma, it defined its overall goal as "to develop a quality, integrated, bilingual, liberal arts curriculum which would be oriented specifically to the needs of adult Hispanic learners." In order to ensure the accomplishment of such a goal, the CBS was instructed to orient its work along five key criteria, as follows:

1.5.1 To Provide a Viable Educational Alternative for Adult Hispanics:

The College's curriculum must meet national standards as well as satisfy students' aspirations by taking into account the new enrollees's actual level of academic preparation. Thus, in order to do this, the curriculum has to address any deficiencies or lack of development of knowledge within an environment that should be time-effective and relevant to the students' lives.

1.5.2 To Provide a Strong Liberal Arts Education:

Non-traditional students are in extreme need to recover "lost" time and move fast in sharpening their learning

skills. Hence, the Liberal Arts paradigm is the most appropriate approach for promoting the process of learning how to learn, and for encouraging logical reasoning, personality development, responsibility, critical thinking and interpersonal skills.

1.5.3 To Provide a Bilingual/Bicultural Learning Environment:

For Hispanics to be active participants in American society, a bilingual approach should emphasize English language proficiency, unbiased materials and methodology, learning situations that are in harmony with students' reality, and the utilization of their native culture as a building block in learning new skills.

1.5.4 To Assure Equity with Respect to Gender, Race, Age and Nationality:

As far as the curriculum attempts to foster individual identity as a key component of self-esteem, it should not ignore the diversity that exists not only among Hispanic and non-Hispanic cultures, but within the Hispanic culture itself.

1.5.5 To Assure that Designs and Results can be Duplicated:

Given the increased national concern for the status of minorities in higher education, and the tremendous opportunity offered by SAC to conduct research and gain insight on non-traditional minority student populations, the experience of the CBS would be very useful to other schools working in similar environments. Therefore, the

careful documentation of the progress of the program, an objective evaluation system, and the dissemination of information for feedback both internally and externally is of crucial importance.

- 1.6 The CBS's structure: In terms of practical organization the CBS was staffed by a Project Director, a Learning Specialist, a Research Assistant and a Clerk Assistant. The services of several consultants were also used according to specific needs in the development of the project. Regarding supervision, the Project Director was accountable to the Dean of Academic Affairs. Copies of Progress Reports prepared for FIPSE were given to all members of the President's Cabinet. Departmental chairpersons, student counselors and faculty members were periodically informed of the CBS's general and specific tasks through workshops, memos and reports.

- 1.7 Implementation Stages: With regard to the planning and timing of the CBS's project, tasks were organized into three stages, over a three-year time span as follows:

STAGE I. Initial Assessment and Operationalization of Project Goals and Objectives (From November, 1985 to September, 1986) This stage was basically aimed at research and assessment. It was critical in providing the project with the necessary information for setting operational definitions as well as determining

parameters and criteria for curriculum development.

STAGE II. Development of Curriculum Strategies and Intervention. (From October, 1986 to November 1987)

This stage involved the actual curricular redesign and execution of intervention. Based upon findings arrived at during the first stage, several curriculum development pilot projects were planned and carried out in conjunction with pertinent offices and departments. Since most of these interventions led to new problems, demanding further research, an early general conclusion at this stage was the need for a permanent and institutional research at SAC.

STAGE III. Integration, Evaluation and Implementation.

(From December, 1987 to September 1988) This stage focused on evaluation, assessment and testing of introduced changes. A final analysis in accordance with the project's central goal to integrate student needs with the curriculum established was conducted. However, given the fact that results from most of the introduced modifications can only be fully evaluated in the long range, the re-evaluation of initial attempts will continue for more than a year. The institutionalization of CBS will help in determining if further curricula modifications are called for, and if program revisions or redesigns in certain areas are required.

Throughout stage I, three central studies were conducted. A sample of leading questions and central findings are as follow:

2.1 Theoretical approaches to curriculum development: The study aimed to establish

- What theories on curriculum were most suitable to the SAC situation?
- How should the CBS organize its work on curriculum development in order to fulfill the project's five key criteria?

The most important conclusion of this study was the understanding that curriculum assessment, especially when dealing with non-traditional student populations, should move beyond a traditional scrutiny of courses and syllabi. Therefore, it was decided to identify and examine all variables which have a direct or indirect impact on the academic process. For such purposes, the CBS systematically approached the tasks in the next two stages at three levels as follows:

CURRICULUM CONTEXT, defined as the environmental conditions within the academic process taking place, and which for the same token influence the implementation and design of the curriculum itself.

CURRICULUM PROCESS, defined as the practical elements of course work involving both subject matter and teaching/learning methodologies. This is the practical level at which the three SAC educational paradigms: bilingual, adult, and Liberal Arts Education become integrated.

CURRICULUM DESIGN, defined as the internal integration of courses and programs as a whole. This is the theoretical level where the three SAC educational paradigms are embodied in planning and curriculum development. Therefore, particular attention should be devoted to course sequence, syllabus standardization, prerequisites, curricular gaps and overlapping of content between interdisciplinary courses, and the development of current and new programs.

2.2 Analysis of the SAC's Curriculum Structure and Syllabi Vis-a-Vis other Colleges and Universities in Illinois:

The objective of this activity was intended to answer

- If SAC's curriculum met the standard of the U.S. system of post-secondary education? and
- How different or similar was each syllabus used at SAC from the same type of course at other colleges and universities?

Because of time and resource constraints, the scope of this research was reduced to a survey of institutions from the State of Illinois. A sample of 27 schools was

drawn out of a total number of 162 Illinois colleges and universities by using the following five criteria:

- (i) Type of school: college or university
- (ii) Size of school: small or large (more than 1,000 students)
- (iii) Affiliation: private or public
- (iv) Accreditation status: already accredited or not
- (v) Geographic location in the state

Twenty seven (27) institutions were asked to participate in the study by providing the CBS with syllabi from the following 18 areas, which correspond to classes offered at SAC:

- 1) Accounting
- 2) Business
- 3) Data Processing
- 4) Economics
- 5) English
- 6) History
- 7) Humanities
- 8) Literature
- 9) Natural Science
- 10) Mathematics
- 11) Philosophy
- 12) Psychology
- 13) Physical Science
- 14) Secretarial Science
- 15) Social Science

- 16) Social Service
- 17) Sociology
- 18) Spanish

A little more than 500 syllabi were received from 20 schools. They were categorized according to classes which corresponded to SAC classes, and then by the course content presented. An index of topics of instruction by course was constructed, and each SAC syllabus was reviewed in comparison with these indexes in order to establish similarities and differences. A final evaluation was requested from departmental chairpersons and pertinent faculty members.

A general finding of this research was that SAC's curriculum and syllabi are very similar to those used in other colleges and universities. In those cases where differences were found, or were flagged, chairpersons and faculty members were asked to produce a rationale to clarify such discrepancies. To facilitate this review, the CBS produced a handbook: "Guidelines for Faculty: How to Write a Syllabus". In the introduction of this handbook special emphasis was made in stressing the point that differences were not necessarily a symptom of something wrong by itself. On the contrary, differences could well be the result of academic reasoning. What indeed mattered was to have or elaborate on a position explaining the differences. That is, a foundation on

such differences should be understood as a way to build up the college curriculum to meet the specific needs of SAC' students. Finally, it was suggested that when a sound basis account for such discrepancies was unsatisfactory, a specific study should be implemented in order to either produce a solid rationale for keeping such a discrepancy, or a modification should be made in order to adapt SAC's curriculum and syllabi to the academic mainstream.

2.3 Characteristics and Conditions of the SAC Student

Population: This study aimed at establishing

- What were the dominant traits of the SAC student population?, and
- What conditions are fostering or hindering the learning process?

This research attempted to identify and measure the main variables that act on the learning process of SAC students. The underlying idea was that by understanding the internal relationship of this process, it would be possible to assess the students' specific needs and the obstacles to which SAC's curriculum should respond. For this purpose, four surveys were planned but only two were actually conducted as follows:

Survey of Current Students: An internal survey of current students targeted to the entire SAC enrollment

in the Spring semester of 1986. Out of 927 registered students, the survey was administered to 859 students (93 percent) through all courses scheduled. The survey covered 47 variables to be measured through 68 questions.

Survey of Current Faculty: An internal survey of current faculty was conducted in the Fall semester of 1987. It attempted to collect qualitative data from faculty members' teaching experiences as well as their views and perceptions on both the curriculum and the students. Out of 96 faculty members, 47, or 49 percent, were interviewed with eleven open-ended questions. Interviews varied from 45 minutes to several hours.

Survey of Alumni: An internal survey of alumni was prepared. However, because of time and personnel limitations, it was not possible to be administered. The necessary data for this analysis was obtained from two surveys conducted by the Development Office of the College.

In-depth Interviews: In-depth interviews to current and graduate students. In order to collect additional information to elaborate more on the CBS's working hypothesis, in-depth interviews were conducted with 54 active students and 18 students who had graduated from

SAC. Interviews had a free format and were conducted in different stages of the project.

Other Planned Surveys: In order to compare the SAC student profile with traditional student populations, two external surveys were planned. However, again, due to human resource constraints, they were not conducted.

- 2.4. Findings on SAC's Students: As a whole, these surveys provided data for the empirical confirmation of several long-existing perceptions on the features of SAC's student body. Along with the specific characteristics portrayed in the SAC student profile (summarized in the introduction of this report) it was possible to provide a sound basis for confirming the condition of SAC students as a non-traditional population. On specific findings, the qualitative and quantitative data suggest the existence of several overall and related features which underline the core of needs and problems faced by SAC students. The identification of the student reality emerging from these was fundamental in building up the frame-work for CBS's assessment of SAC's curriculum. Moreover, the rationality of most activities and interventions developed by the CBS can be traced to these findings. Though they form an interrelated totality, for purposes of analysis they are disaggregated in five aspects of which the narrative account is as follows:

STUDENT MOTIVATION: The majority of faculty members described as their most striking realization experienced at SAC the discover of students' motivation. Asked to identify a distinctive feature of SAC students, in comparison with other populations, 87 percent pointed out motivation as the main driving force of SAC students. It seems to be that given their condition as adults, heads of family, and poverty, most students come to SAC with the conviction that the College is one of the few opportunities, if not the only one, or even the last one, able to radically change their lives. In this sense motivation provides the extra energy to face multiple duties; e.g. students who are both full-time workers and students have to spend an average of 68 hours per week just in commuting and fulfilling the schedules of both responsibilities. Motivation also compensates for the feeling of uncertainty and fear when students realize the enormous dimensions of academic demands. All graduated and active students interviewed, reported having several crisis in which they questioned the relevance of their endeavors, yet all were able to surmount them by subjectively reinvigorating their commitments with the need for success. Therefore, students motivation --not academic trajectory as for traditional students-- is the bedrock from which the curriculum can start to build up academic success for non-traditional students. In a sort of radical formulation, it does not matter how well prepared

academically students coming to SAC are, but how eagerly they desire to obtain academic preparation. Student motivation is the critical input of intellectual and academic potentialities. A typical SAC student will success not because of previous achievements, but because of his/her own realization that precisely the lack of past academic achievements demands a stronger commitment to academic duties. The implications for the curriculum and the institution working with such a "raw material", are rather clear though not simple: THEY JUST HAVE TO PROVIDE THE NON-TRADITIONAL STUDENT WITH A REALISTIC AND SUITABLE WAY OF PERSONAL AND ACADEMIC DEVELOPMENT. And this problem belongs to the universe of the adult-bilingual-higher educational technology..

COMPETING PRESSURES: A typical SAC student lives under several pressures. The multiple obligations they have as heads of family and workers create strenuous tension affecting their attention span and power of concentration. The survey of SAC's students attempted to quantify this variable as a distribution of time spent in their duties as students and in other roles. The survey asked: What tasks do you normally perform in a week, and how much time do you spend on them? To help students with their answers, this question was divided into five general categories, with each category broken into several parts:

- (i) Study: classroom time vis-a-vis out-of-classroom time
- (ii) Work affairs: paid employment time
- (iii) Transportation: commuting to/from work, school, home
- (iv) Family affairs: taking care of children, shopping, cooking, cleaning and washing, others
- (v) Social affairs: cultural, religious, recreation, community and family activities, others

The data showed that most SAC students can devote only a limited amount of time to their studies. Out of 94 percent of the surveyed students who fully answered this question and who were also full-time students, 63 percent did not devote more than 6 hours per week to out-of-classroom study time. This situation has a strong impact on student academic performance. For the group having a Grade Point Average (GPA) equal or greater than 2.00 (C grade) and devoting more than 6 hours per week, a positive correlation of .84 between out-of-classroom time and GPA was found. On the average, students in this group studied 7.00 hours per week out-of-classroom and had a GPA of 2.75. Furthermore, a regression analysis that held a GPA as a dependent variable yielded a 0.25 increase in the GPA for an additional hour and a half. In other words, a student spending 14.30 hours of out-of-classroom study would be expected to have a GPA of 4.00. The regression of GPA on hours of out-of-classroom study has a greater slope for small values of hours. Because of this fact, the attention has been restricted to cases of GPA where

the above mentioned regression is closer to a straight line. Therefore, the students' limited time for devoting to out-of-classroom study should be seriously considered in any project of curriculum or institutional development. Moreover, rather than demand flexibility from the students, the curriculum and the institution should continually strive to increase its own ability to adapt to the students' needs. Thus, strategy planning, expansions and new investments should always bear in mind the reality of competing pressures of SAC's students.

EDUCATIONAL SOCIALIZATION: Before enrolling in the College, an average SAC student had been out from any type of formal educational process for 13 years. Therefore, it is reasonable to expect that his/her abilities to perform within an academic environment are much lower than a recent high school graduate. When SAC detected this situation, it attempted to solve the problem by offering a course designed to sharpen academic skills. However, CBS's research found that although poor academic skills were a real issue with a non-traditional adult student population, the dimensions of the problem go much deeper. In fact, the lack of academic skills is a common trait even in the youngest segment of SAC's population, the 18-24 year old group, which in a city like Chicago, is primarily composed of

high school drop-outs. In order to move the discussion beyond its "instructional" component, the CBS reformulated the problem as the high likelihood of a low degree of EDUCATIONAL SOCIALIZATION among non-traditional students. As an operational definition, educational socialization would be responsible not only for inadequate academic skills, but also for all shortcomings in understanding the discipline which the academic world is comprised of. The out-of-school variable seems to be the main basis underlying the lack of educational socialization, but it is also influenced by other factors such as family educational background. Ninety-seven percent (97 %) of SAC's population are first generation college students, and eighty-two percent (82 %) are the first sibling, or spouse, in college. Furthermore, SAC students score as pioneers within their own communities: seventy-nine percent (79 %) do not have relatives or close friends who graduated from post-secondary education. Therefore, coming from a world where "academic culture" is rather unknown, students must be re-socialized in several dimensions:

- (i) by instilling study habits (97 percent of the surveyed students do not have a specific place to do homework, write papers or prepare for classes),
- (ii) encouraging the use of the college's resources (only 13 percent use the library on regular basis),

(iii) getting them acquainted with traditional school procedures (all students interviewed, both graduate and active students reported that it took them at least three semesters to become familiar with the rules for withdrawing and adding courses).

ABSTRACT THINKING: A common finding that emerged from in-depth interviews is that in response to their immediate needs as adults, SAC's students have become accustomed to spending their energy and time to very definitive activities involving the demands of plain survival such as rearing children and/or earning a living. Moreover, living under severe economic and emotional pressure, they have the perception in order to be "efficient and productive" that their vital responses must be almost instantaneous, with a high degree of immediate gratifications. Thus, in correspondence with the pragmatic nature of this daily "survival" way of life, the idea of success that they have tends to be embodied in a rather mechanical manipulation of their surrounding reality. Therefore, it can be hypothesized that the logic of thinking that emerges from this recurring pattern of life has a very concrete character. Additionally, as the span of the out-of-school time increases, the probability of a total abstention from using books and written material for independent learning purposes is higher. Thus, in most cases of

entering students, they have forgotten or, perhaps never experienced, the method and discipline that normally accompanies the successful sustained learning of academic materials. Of course, this should come as no surprise. Contrary to the common accepted assumption of academic life, the objective and concrete conditions of the non-traditional students' previous daily lives do not demand a rigorous and highly abstract background in order for them to be effective. However, once in college, and independently of any consideration, students need to be thoroughly exposed to and trained in the methods of systematic and abstract thinking which form the basis of the Liberal Arts and the professions. As college students, they are compelled to produce abstraction in order to identify and formalize structure, function, evolution, regularity, chaos and relevance in diachronic and synchronic settings. And precisely because of their background, it is doubtful whether a majority of non-traditional students, if left alone, would attempt to make abstract, systematic and reflexive thinking the main objective of their academic toils. As a point of fact, graduated and active students interviewed reported having experienced a similar gap between their abilities to find solutions to daily dilemmas and their capability to solve problems of an academic nature. Moreover, faculty interviewed also reported student's difficulties in understanding

abstract explanations without reference to concrete illustrations and examples. Therefore, it is a responsibility and necessity for the College's curriculum to develop and refine students' mental capabilities, so that they can move from a very concrete way of thinking to a more abstract one. In summary, the challenge of developing abstract thinking implies that, only if they are able to generalize and particularize under varied circumstances, extracting implications and choosing means to achieve goals, will make them able to handle practical and professional academic tasks.

IDENTITY AND SELF-ESTEEM: Most SAC's students are immigrants or the children of first generation immigrants. As such, they are still in the transitional process of finding emotional, cultural and socio-economic bases that will allow them to fully participate in the target society's aspirations, achievements, and pains. However, the process of integration is neither easy nor direct. Depending on the degree of integration, immigrants would display ambivalent disparate feelings. They overwhelmingly wish to become mainstream Americans while, at the same time, they resist abandoning the fundamental traits of their original national culture, particularly their native languages. A dominant 97 percent of the surveyed students who are Spanish speaking dominant use it at

home and in their social life. On the other hand, most students, both graduated and active, who were interviewed reported having the feeling of a permanent struggle for maintaining their American Hispanic identity. Many of them also reported having periods of crisis where they found themselves in a kind of cultural limbo, described as the propensity to lose one's cultural identity without gaining a new one to take its place. Certainly, these are typical experiences for both first and second generation immigrants. However, from the point of view of curriculum development they become matters of concern as much as literature in education singles out identity and self-esteem as critical components in increasing motivation and academic success. Without solid self-esteem, motivation cannot be a powerful drive. Motivation is the strongest comparative advantage with which non-traditional students can compensate for their weaknesses, particularly, their academic backgrounds and time constraints. In terms of the student's relationship within the society at large, the need for providing positive solutions to these "existential crisis", is also vital. Otherwise, the possibility of becoming productive participants in mainstream America is practically non-existent. Since democracy is made up by citizens, one must first be a person, this is, it must exist as a proud human being, in order to become a responsible participating citizen. By the same token,

in order for an immigrant to be meaningfully integrated into a new culture, he or she has to have a strong will to remain historically loyal to what he or she has been. A person without an identity has nothing to integrate, basically because his or her very existence as a person is continually being questioned. Continuity, while embracing a new way of perceiving and thinking, is the best guarantee to integration. In-depth interviews with active and graduate students suggested a model in which the successful entry into a new set of behavioral patterns has as a precondition an already existing, and even secure set of such patterns. In this fashion, an alignment with the new patterns occurs with a minimum degree of traumatic experiences. If on the contrary, "integration" has been based on the destruction of the person's identity, his/her self-esteem seems to have been damaged too. In the case of SAC's population, the CBS found that high self-esteem is a fundamental component to successfully face academic challenges which appear, most of the time, too overwhelming.

In summary, the confirmation of these five related features (student motivation, competing pressures, educational socialization, abstract thinking, and identity and self-esteem) of the SAC student population was extremely important to the CBS project. They were instrumental in CBS's experiences in promoting internal discussions as well as seeking solutions.

Based upon the research findings from the first stage, the CBS identified several areas of concern regarding SAC's curriculum. During the second stage, additional studies were conducted involving pertinent Offices and Departments according to the nature of each concern. Throughout the third stage 11 specific projects of curricular intervention were planned and implemented. According to the curriculum levels defined by the CBS, a summarized account of these projects is as follows:

3.1 Interventions at the Curriculum Context Level: (defined as the environmental conditions of the academic process)

3.1.1 Satisfactory Academic Progress Policy: In conjunction with the Offices of Academic Affairs and Student Affairs, the Satisfactory Academic Progress Policy (SAPP) was reformed in the Fall of 1986 and implemented in the Spring of 1987. To redesign a new SAPP, the CBS and the above two offices conducted a study on the impact caused by the old SAPP on the SAC student performance. Federal and State regulations concerning this matter were also reviewed (34 CFR 668.16 and 23 IAC, Chapter 24). As a result of these research studies, three key considerations enlightened this reform as follows:

a) As a policy of "minimum standards," the old SAPP was derived from other colleges and universities which work with traditional or average student populations. In evaluating its role as a major instrument in setting the parameters of academic progress, the CBS found that for a non-traditional student population such a policy had two major inconsistencies. First, in practice, only at the end of the freshman year (30 hours attempted) it penalized a theoretically possible failure of a zero GPA. Therefore, since scholarship funds could attract people whose primary interest in enrolling in the college were other than studying, it was not a good tool for dealing with them. On the other hand, in many cases students with low grades went unnoticed and did not realize how precarious their status was because they could still, sometimes automatically, receive financial aid after their first semester. Second, requiring a GPA of 2.00 in the second year demands an excessive, almost impossible task for a student who, though working hard, may not be able to achieve, within two semesters, such minimum standards because of a number of reasons beyond his/her immediate control.

b) A CBS study on SAC's attrition found that at least 22 percent of drop-out cases were students who completed 24 hour credits with less than a 2.00 cumulative GPA. It is very possible that these students, besides being

under intense pressure, were driven out of SAC by the old SAPP without receiving a second chance. The contention of the CBS was that such a situation was not only in opposition with SAC's open door policy, but also was divorced from its educational philosophy of a transitional and developmental curriculum.

c) To overcome the negative impact of the old SAPP, a new policy was designed geared toward putting emphasis in tracking efforts in the critical first semester as well as providing a suitable way of development for non-traditional adult students through the next three semesters. In this fashion, the new SAPP would be able to meet the needs of

- (i) those students who depend on help for adjusting to the academic environment, or
- (ii) those who may confront mitigating circumstances, and
- (iii) those who can succeed if given closer supervision and attention.

d) In the Fall Semester of 1988, the Committee on Academic Policy (CAP) was created in order to assess the new SAPP. The CAP found that the new SAPP was basically achieving its purposes, though some minor modifications were needed.

3.1.2 Honor Program and Dean List: In coordination with the Office of Academic Affairs, an Honors Program and a

Dean's List were established in the Spring Semester of 1987. The background of these programs is as follows:

a) In studying SAC's attrition, the CBS found a different phenomenon from that which led to reforming the SAPP. From the Spring Semester of 1981 through the Spring Semester of 1986, 349 students that had accumulated 48 hours of credit or more left the college with a GPA higher than 2.59. Based upon their academic achievement, the CBS hypothesized that this group obviously had found a way to organize their lives effectively, balancing pressures and student duties. Thus, if they had left the college for academic reasons, such reasons might be propelled by the limited opportunities offered by the SAC's curriculum.

b) Furthermore, in the same period, SAC transferred 380 students, without graduating them, to other institutions of higher education. A cross reference analysis showed that 83 percent of those students belonged to both groups (transferred and the ones who had left with GPA higher than 2.59.) Notwithstanding the fact that transferring students to other colleges and universities is part of SAC's mission, it is a matter of concern when the SAC's ability to retain students until completion of the program requirements is analyzed.

c) In assessing this situation, the CBS presented two concerns:

- i) the "loss" of most promising students would diminish the college's efforts for developing an internal core of successful role models; a core that is a key element in motivating non-traditional students; and
- ii) the realization that SAC was not providing higher-achieving students with the intellectual challenges that they deserve, nor with the institutional niche for them to develop their own expectations.

d) SAC adopted the CBS' proposal of an Honors Program and a Dean's List, as an initial mechanism for dealing with the above concerns, given the limited resources available. But it was realized that as long as the heterogeneity of the student population continues, more radical alternatives will be needed.

e) An assessment of the Honors Program and the Dean's List is scheduled for the Summer of 1989.

3.1.3 English Placement Test: In conjunction with the Department of English and the Office of Student Affairs, a new English Placement Test was developed and

implemented in the Fall Semester of 1986. The need for this activity emerged as a result of the English program reform as well as repeated concerns from the English instructors of having students misplaced into their classes. Specific aims of this activity were as follows:

- a) Regarding the ability to speak the English language, people seeking admission at SAC could be divided into two major groups, those with very basic or zero English reading and writing skills and those with a large variance in language proficiency. Thus, there was an evident need for a placement test with two parts which could discriminate across such variances.
- b) The first part of the test (seven oral questions) should sufficiently assess English skills of the former group. By eliminating the long complicated test, the admission process was also simplified. This retrenchment was consider a key adjustment for those candidates whose English language limitations made them vulnerable in such frustrating experiences. On the other hand, since SAC's English program is not suitable for people with a zero level of proficiency, it is crucial to identify such applicants before they are enrolled in order to give them special pre-college help.

c) The first part of the test aims to classify candidates in three categories as follows:

- (i) People with English proficiency lower than beginning level (in need of pre-college help)
- (ii) People with English proficiency at beginning level (placed automatically in beginning level of ESL)
- (iii) People with English proficiency higher than beginning level (must take the second part of the test)

c) Those applicants able to pass the test's first part ought to take the second part that would classify them into one of the five levels of SAC's English program as follows:

- (i) Beginning ESL level: English 101 and English 104
- (ii) Intermediate ESL level: English 105 and English 108
- (iii) Advanced ESL level: English 109
- (iv) Remedial English level: English 106 and English 111
- (v) Composition English level: English 201 and English 202

d) Because of the need for a finer placement of this group, such applicants have to go through a longer and more complex test which has been designed to discriminate across four skills:

- (i) aural comprehension
- (ii) reading
- (iii) vocabulary
- (iv) grammar

e) Finally, applicants who rank in the higher percentil of the test's second part are interviewed in the English Department to discriminate if they are in need of Remedial courses or can be placed in Composition courses.

f) When applicants are very close to the border lines, and the likelihood of misplacements are the highest, a margin of security would place them at a lower level. Instructors would be able to discover borderline students misplaced at a lower level faster than at a higher one, and adjustments could be made more quickly.

g) In the Fall of 1988 the English Department assessed the new Placement Test and made some adjustments. Based on the data accumulated in five semesters, the CBS in conjunction with the English Department planned to standardize the placement test according to adult-Hispanic norms for the Summer of 1989.

3.1.4 Mathematics Placement Test: In conjunction with the Department of Sciences and the Office of Student Affairs a new Mathematics Placement Test was developed in the Summer of 1987. This was partially in response to the mathematics' instructors observations that entering students were being assigned to the wrong mathematics

course levels. As in the case of the English placement test, there was the additional need, expressed by the Admissions Office, to shorten the time that applicants needed with the placement exams, of which the mathematics exam represented a substantial portion. The new Mathematics Placement Test embodies the following features:

- a) By taking into account the connotations of SAC target population, this placement test aims to evaluate conceptual abilities rather than computational skills. Although because of practical reasons the test has a computational format, it allows space for computational mistake while search to identify the level of mathematics reasoning, as well as classify incoming students into four categories as their previous exposure to mathematics.
- b) The test classifies incoming students as follows:
 - i) the lowest rank detects students who need to definitely improve basic arithmetic skills at the pre-college level before enrolling in SAC;
 - ii) the next rank discriminates among students qualified to enroll in a mathematics review and an application college course;
 - iii) the third rank sets aside students prepared for an introductory algebra course;
 - iv) finally, the last rank identifies students ready

to cope with College Algebra or Finite Mathematics.

b) The New Mathematics Placement Test is also used as part of the battery of tests administered to applicants in the admission process. As such it simplifies this process by eliminating redundant and/or irrelevant questions.

c) As with the English Placement Test, students who fall close to border lines, a margin of security would place them into a lower level.

3.1.5 Equation for Admitted Students: Throughout 1988, in conjunction with the Office of Student affairs, an equation was developed to estimate the probability of success and/or failure that a student would have when admitted. Antecedents for this activity are as follows:

a) To increase retention in working with non-traditional students, SAC developed a strong program of student services and comprehensive counseling. Counselors work with students on an individual basis, assisting them in a large range of situations, from academic to personal problems. By the time students enter the third or fourth semester they have a solid relationship with their counselor. This relationship becomes the most effective deterrent in avoiding

attrition.

b) However, in analyzing the SAC historical attrition, the CBS found that seventy-one percent (71 %) of the entire attrition problem is concentrated in the freshman year. Forty-three percent (43 %) of the attrition occurs during the first semester and twenty-eight percent (28 %) in the second. Based upon these findings, the CBS hypothesized that students in greater need of counseling support were not being identified in time; and in practice counselors rarely became familiar with most of the students who dropped out. Ironically, just those who were in a better chance to survive, precisely because they were able to stay in the system, actually received full supportive assistance from the Office of Student Affairs.

c) Since the reality of limited financial resources at SAC did not allow for increasing the number of counselors, the CBS proposed devising a mechanism to identify students at greater risk from the moment they enrolled. Therefore, the Office of Student Affairs could make use of a more productive distribution of its resources.

d) By working on the data from five thousand students enrolled at SAC between the Spring semester of 1981 to the Fall semester of 1987, the CBS divided this

population into two mutually exclusive groups (the success group and the failure group). This data was collected from files and records from three offices: Academic Affairs, Student Affairs and Financial Aid. Using the statistical technique of factor analysis, eight (8) common variables were selected according to its sensitivity as follows:

- 1) SEX
- 2) AGE
- 3) FAMILY STATUS (number and age of children)
- 4) INCOME
- 5) NUMBER OF SCHOOL YEARS COMPLETED
- 6) NUMBER OF YEARS OUT OF SCHOOL
- 7) SCORE ON THE ENGLISH PLACEMENT TEST
- 8) SCORE ON THE MATHEMATICS PLACEMENT TEST

e) To estimate a linear discriminant equation for predicting the degree of academic risk of a new student, the technique of canonical (discriminant) analysis has been used. This equation has a preliminary status and has not been implemented yet by the Office of Student Affairs.

f) In order to provide a classification procedure that minimized the probability of misclassification, a key

condition of this activity, certain assumptions about the data must be met in this technique. The most important of these assumptions was that each group must be a sample from a multivariate normal population, and the population covariance matrices must all be equal. Otherwise, the linear discriminant function cannot be accurate. Unfortunately, this has been the case thus far with the preliminary equation. Given the fact that collected data was produced at different stages of college life and kept in diverse formats, many cases had missing values for at least one variable. Thus, the actual analysis has been based on a small subset of cases. This has been troublesome for two reasons. First, estimates based on a small sample have tended to be quite variable. Second, when cases with missing values have differed from those without missing values, the resulting estimates were too biased.

g) Due to the above situation, the CBS decided to postpone the release of the equation until more complete data could be collected and added. An implementation of the equation is scheduled for the Fall semester of 1989.

3.2 Interventions at the Curriculum Process Level (defined as the practical elements of course work)

3.2.1 Reform of the English Program: In conjunction with the Department of English, a reform of all English courses was initiated with the beginning level (new students) in Spring 1987, and generalized to all courses in the following two semesters. This was the most ambitious task launched by the CBS which also consumed much of its human resources.

a) As a bilingual institution, SAC has a strong commitment to offering an English language program able to secure its graduates a high degree of proficiency. This commitment is embodied in the bilingual design of the curriculum. In fact, the transitional bilingual approach facilitates the students in making progress in learning and improving their English, while earning credits in college courses taught in Spanish. In this fashion, as they move through their programs, the transitional bilingual structure would provide them with better English skills to the point where they are able to perform without difficulty in an English speaking environment. Besides the English program itself, evidence of such efforts are the use of textbooks written in English in subject matter courses and classes with entire lectures given in English at the upper level courses, normally those offered to students who are in their last semester.

b) However, as it was stated in the findings of SAC's curriculum studies, satisfactory English proficiency is

a goal still to be met for a good number of students. Several examples illustrate such shortcomings. According to the 1986 survey only twenty-eight percent (28 %) of the students regularly use their English textbooks to study and prepare for exams; only twenty-five percent (25 %) took notes in English when the lecture was given in English; among those who were identified as dominant in Spanish, a mere two percent (2 %) subscribed to newspapers or magazines in English, and an even lower number, less than one percent (0.3 %) read novels in English while an overwhelming seventy-nine percent (79 %) did so in Spanish. From the alumni survey an overwhelming eighty-seven percent (87 %) percent did not feel well prepared in the English language after graduating. Similarly, the surveyed faculty members strongly agreed in the perception that students:

- i) avoid enrolling in courses where lectures are given in English and that English textbooks are not used much;
- ii) prefer to write research papers, reports and answer essay questions in Spanish;
- iii) feel uncomfortable speaking English.

c) In exploring solutions to the above shortcomings, it is critical to keep in mind two conditions which impose drastic limitations to any alternative. First,

SAC is a junior college; therefore, a student has only 4 or 5 semesters to work toward his/her Associate Degree in a particular area, as well as to become proficient in English. Furthermore, this task, which by itself is no small one, is being carried out within an environment where business is primarily conducted in Spanish (home, social life, school, etc.). Second, because of the nature of the curriculum at SAC the English program cannot be an intensive one where students study English 20 hours a week; rather the program is very limited: students can only take 24 hours of English without adding excessive pressure to other graduation requirements (four elective courses and two English composition courses). Moreover, to fulfill graduation requirements within a time frame, students can only take one English class per semester (two at the beginning and intermediate levels), totaling 32 hours of English at the most by the time they graduate.

d) To respond to the shortcomings of the English program, the solution in the past was to add more courses. However, by 1986 such a remedy had been exhausted: 8 out of 16 courses were in English. This situation was particularly serious because, according to the advocates of the previous English program, there was still a need for more English courses, although there were already two more than the maximum.

e) In assessing the English program, the CBS conducted several statistical tests to study whether the grade distributions of this department, for both class and student, were equal or different than the rest of the college programs. None of these tests gave enough reason to accept the hypothesis that such distributions were different. Moreover, these results were reinforced by the fact that the English Department had departmental exams, and grades were not based on curves but scales. Therefore, the CBS argued that the English Department was indeed accomplishing academic success. But because of the grammar orientation of its curriculum, SAC's English program was based on the wrong assumption that, in developing competence in a second language, learning (the ability to manipulate the language rules, mainly its grammar and syntax) leads to acquisition (the actual ability to communicate in the second language, mainly by understanding it and producing utterances). This contention was confirmed by several English instructors who claimed that SAC students at different levels could indeed "fill in the blanks" and complete tests, but could hardly communicate coherently in English. This situation became a matter of special importance when the issue of speed in mastering the English language versus time constraints in the curriculum was under consideration.

f) Another criticism made by the CBS was that the

content of English classes often overlapped. There were too many separate courses which lacked integration and continuity. For example, English 101 (grammar), English 104 (conversation) and Laboratory 011 (beginning level), as well as English 105 (grammar), English 108 (conversation) and Laboratory 015 (intermediate level) were very similar in content but all separate courses with different instructors. To a lesser degree, similar overlapping occurred with English 111 (writing) and English 201 (composition).

g) Finally, the CBS questioned the practice of not allowing the use of Spanish in the beginning and intermediate level English courses. First of all, this implied not taking advantage of a unique feature for facilitating communication: the first language homogeneity of the student population. Second, it added an unnecessary burden to the already complicated task of explaining/understanding grammar structures. The CBS supported its argument by demonstrating that in the entire field of applied linguistic research, there was no scientific evidence that the appropriate use of the first language would hamper the acquisition of the second language.

h) After studying several alternatives, the CBS proposed to reform the English program with the triple

goal of

- (i) increasing the "productivity" of the English courses by changing the methodological approach of teaching,
- (ii) increasing the intensity of instructor-student contact by altering the curriculum design, and
- (iii) specializing and integrating the whole program by differentiating three sub-programs, each one targeting three specific sub-populations:
 - (a) the Spanish dominant population in need of an intensive English as a Second Language Program,
 - (b) the English dominant population in need of a remedial and Standard English Program, and
 - (c) a Standard College level English Composition Program.

j) A summary of the CBS specific guidelines for reforming the English program were as follows:

- i) change the English grammar approach to communicative mode at the beginning and intermediate levels emphasizing acquisition rather than learning
- ii) reorganize the curriculum according to the new methodology and define the areas for three articulated sub-programs; redistribute course

contents; standardize course syllabi and produce unified lesson plans

- iii) reinforce the policy of unifying quizzes, tests and exams in English courses focusing on aural comprehension, writing, reading comprehension, and vocabulary; for purposes of measuring progress and providing students with feedback, quizzes should be administered every week
- iv) select a new set of ESL textbooks more in line with the new methodological approach; selected textbooks should be accompanied by audio cassettes for each lesson and should be available to students at a reduced cost (The American Streamline Series was adopted)
- v) deploy only bilingual instructors at the beginning and intermediate levels and encourage the use of Spanish for explanations and directions
- vi) create two blocks of two courses and a Lab for the ESL program (beginning and intermediate levels), and a block of two remedial courses for English dominant students; each block should meet four hours in 3 consecutive days and have a unified curriculum with a single instructor so student's/instructor's contact hours would be tripled and the amount of contents would also be increased

vii) redefine instructional objectives for each course according to the new methodological approach and set strict minimum standards per level; enforce the existing policy of grading by a fixed scale of standards rather than a performance curve

viii) put a strong emphasis on grammar in the remedial English courses as well as in the standard composition courses

k) A preliminary evaluation of these changes found that the overall goal of increasing the "productivity" of the English program had been initially achieved:

(i) more material was covered at the beginning and intermediate levels,

(ii) thus, one course of the ESL track was eliminated,

(iii) and, according to reports from English faculty members, students "arrived" in upper courses better prepared and exhibiting greater proficiency in aural and reading comprehension, as well as oral production.

l) A deeper assessment of the English program is scheduled for the Spring Semester of 1989.

3.2.2 Unification of Syllabi and Exams In conjunction with

the Office of Academic Affairs a mechanism for unifying course syllabi and standardizing mid-term and final exams was developed. The background of this activity is as follows:

a) - The lives and schedules of SAC students are constantly in flux. Hence, they may need to change their schedules at any moment in the semester and very suddenly (from morning to evening classes, from one day to another, from main campus to an extension, etc.) The following are only some of the most common possibilities identified by the CBS:

- i) a student who has a job is abruptly laid off
- ii) a student who is unemployed gets a job
- iii) a student working evening or afternoon shifts may be switched to day or vice versa
- iv) the spouse of a student may have a change in work schedule which forces the student to rearrange his/her plans (for example, husband and wife need to rearrange the time they will be home to take turns caring for the children).

b) Therefore, if a student needs to change sections within the semester, unified syllabi and textbooks as well as standardized quizzes, tests and exams would provide him/her with a fair and less traumatic

transition.

c) Most of the SAC faculty members are contracted as part-timers which inevitably creates diverse problems regarding organization and efficient operation. Although all of them meet standard qualification requirements for teaching at an institution of higher learning, the college must ensure high quality, specialized programs for its students, in addition to maintaining the academic standards as those other colleges in the mainstream of higher education. Hence, unification and standardization is, in terms of opportunity cost, the best way to establish and monitor the realization of academic standards.

d) Since it was materially impossible for CBS alone to carry out this task, the responsibility of its execution was transferred to each academic department while CBS assumed a role of technical facilitator. Along with guidelines on how to implement the unification of course syllabi, CBS produced a master outline to built up departmental syllabi which included the following sections:

- i) Name and brief description of the course
- ii) An statement for the rationale of the course within the SAC curriculum as well as how it would fit into the mission of the college and the larger

community

- iii) Identification of long term educational objectives defined as the insights, techniques of thinking and attitudes that the student needed to obtain and keep using beyond the scope of the immediate instructional objectives
- iv) Identification of instructional objectives defined as sets of measurable skills that the student should be able to perform by the end of a given period of instruction
- v) Identification of the cluster of contents by unit of learning
- vi) Breaking down the units of learning into content for scheduled meetings of the course through the semester
- vii) Forms of evaluation including dates for quizzes, tests, and exams as well as specific weight and scale to be used in grading
- viii) Additional and supplementary bibliographic information
- ix) Specific policies according to the nature of each course
- e) A basic unification of syllabi was achieved in all

academic departments, but only three Departments (English, Science, and Humanities) elaborated master syllabi. With regard to test and exam standardization, only the English and Science Departments were able to produce a solid step in such a direction. In order to speed the standardization in the other Departments, the Office of Academic Affairs initiated the construction of a computerized test bank in the Fall semester of 1988.

3.2.3 Introductory Mathematics Course: In conjunction with the Department of Science, the CBS reviewed and redesigned the introductory Mathematics course (MAT 101), and produced a bilingual textbook for it. The background of this activity is as follows:

a) In general, Mathematics is an area of knowledge bound to be forgotten in persons who discontinue formal education for a long time and/or do not use it permanently. This situation is a critical curricula issue within the specific context of SAC, where on the one hand Mathematics is an unavoidable part of the Liberal Arts core curriculum, while on the other hand, the requirement of college Algebra is instructed to a non-traditional student population, which most of the time is made up by adults who also are interrupted learners.

b) In specific terms, the CBS identified four reasons

that make Math 101 a key course in most of student's programs as follows:

- i) it is a common course for 85 percent of the incoming students who are likely to be in a critical need for a fast and efficient remedial transition to a college level of Mathematics performance;
- ii) since the following course of Mathematics (Math 102) is a graduation requirement that it is also a pre-requisite for most majors, students are practically compelled to take Math 101 in the first semester, or at the most in the second semester
- iii) for students majoring in accounting, computer science, business or the natural sciences, a solid background in basic concept of Mathematics as intended in Math 101 may make the difference between future academic success or failure;
- iv) there is the likelihood that a new student who placed in Math 101 will be also placed in the English courses at beginning or intermediate levels, and since the development of a mathematical reasoning clearly strengthens abstract thought, a vital component in the acquisition of a second language, Math 101 can also be a powerful tool in sharpening the intellectual abilities for learning English.

c) In assessing the "effectiveness" of the mathematics courses, the CBS found two common shortcomings in the instruction of Mathematics:

- i) the reduction of mathematics to computational skills,
- ii) the shared perception by faculty and students of a gap between the teaching of mathematics and the Liberal Arts curriculum.

d) In order to confront these problems several changes in the Math courses were implemented under the following two guidelines as follows:

- i) teaching of mathematics at SAC should go past the stage of stressing computational skills alone and strive to increase students problem solving competence. The ability to think problems out and make sound decisions to solve them should be stressed;
- ii) since students often encounter Mathematics as too abstract and unrelated to other parts of the curriculum, to overcome this separateness a major effort should be made to include more materials in the mathematical syllabi dealing with situations that are familiar to the students in their major curricula, as well as in other optional courses.

d) Activities related to mathematics courses included the following:

- i) revision and standardization of the Math 101 syllabus with a detailed formulation of Long Term and Instructional Objectives.
- ii) training of faculty in teaching methodologies according with the formulated Long Term and Instructional Objectives
- iii) production and testing of a bilingual textbook in line with the introduced changes

3.3 Interventions at the Curriculum Design Level: (defined as the internal integration of courses and programs)

3.3.1. The Spanish Program: In conjunction with the English department the CBS designed the curriculum for three Spanish courses geared to the SAC's English dominant students throughout the Spring and Summer of 1988. A summary of main considerations in developing this activity is as follows:

a) Most of the time second and third generation immigrant are English language dominant as well as understand and speak the parent's language with some degree of proficiency. Among Hispanics, this phenomenon is a common trait in the Cuban, Mexican and Puerto Rican communities.

b) They are English dominant because this has been the school instructional language used to build up most of their knowledges about the world and mainstream society, while Spanish has been the language of family and, to some extention, community affairs. Both languages are equally important though relate individuals with different type of realities and existential experiences. Therefore, for these people English and Spanish are their native or first languages.

c) However, since language represent different realities and usages, this type of students exhibit disparate degree of proficiency. Most of the times, the command of Spanish is just colloquial, and they have many diffiçulties writing and reading. Also, their Spanish vocabulary is normally reduced and limited to immediate and daily functions. They are able to think in both language but evidence many difficulties in producing abstract thinking in Spanish. English dominant students interviewed by the CBS reported the paradoxical situation of feeling more comfortable expressing themselves in Spanish in casual and familiar circumstances, while prefering to communicate in English in more formal or unacquainted settings.

d) In analyzing this reality the CBS's contention was that English dominant students cannot be considered as bilingual since they were practically "illiterate" in

Spanish. However, precisely because of their cultural and linguistic background, they were in the best possible condition to become in a short time fully literate and proficient in Spanish. Moreover, the failure to provide them with a suitable program of Spanish through their college experience would be not only unfair with them, but also the nation itself would be deprive of critical human resources.

e) In order to address the above concern, the CBS developed the a Spanish program curriculum consisting of three courses: Spanish 107, Spanish 108 and Spanish 211. Spanish 107 has been offered since the Spring Semester of 1988 and Spanish 108 since the Fall Semester of 1988. Spanish 211 has been scheduled for the Spring Semester of 1989.

f) An evaluation of the Spanish Program will take place on the Summer of 1989.